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process. The process 70d makes use of the low-quality low-cost source of availability information 103, assume every seat is available in every booking class. Computation proceeds as if the low-quality speculatively guessed data were high quality, in the sense that the origin of the data does not affect the computational processes. This process uses speculative computation 105 to determine results. Instead of spending the cost to acquire and process actual answers, the system speculates 105 as to what the answers might be and expends computation to ascertain what the results would be were the speculation true. Speculative computation has already been seen in the context of Monte-Carlo integration to compute the expected price discussed above. --

In the claims:

Please amend claims 1-5, 9 and 14, as follows:

(Amended) 1. A travel planning system comprises:

a scheduling process for determining a set of instances of transportation that satisfy a user query;

a faring process that determines fares valid for at least some of the instances in the set of instances of transportation; and

an availability process that uses results from a source of seat availability information for a mode of transportation to determine a set of available instances of transportation and determines quality properties of the availability information to guide the travel planning system to determine a subsequent set of available instances of transportation.

(Amended) 2. The travel planning system of claim 1 wherein the availability process determines whether the single source of availability information is reliable, and if the results are not reliable, the availability process makes a second set of seat availability queries to the same source or a different source of seat availability information.

(Amended) 3. The travel planning system of claim 1 wherein the availability process makes multiple, sequential seat availability queries to at least one source of seat availability information.

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(Amended) 4. The travel planning system of claim 2 wherein the availability process makes multiple simultaneous seat availability queries to multiple sources of seat availability information.

(Amended) 5. The travel planning system of claim 3 wherein the sources of seat availability information have differing fixed and marginal costs associated with obtaining information, including computation, communication, time, and monetary-cost.

(Amended) 9. The travel planning system of claim 3 wherein the sources of seat availability information are sources of predicted availability information that generate replies with differing quality properties including at least one of freshness, confidence, precision, and validity.

(Amended) 14. The travel planning system of claim 1 wherein the travel planning process data containing scheduling and fare information and availability data are sent to an intelligent client for further processing and integration by the client.

Please add claims 15-30.

15. A computer program product for use with a travel planning system for determining availability of a seat for a mode of transportation, comprises instructions for causing a computer to:

receive a set of instances of transportation that satisfy a user query;

determine quality of availability information to guide a travel planning system to determine a subsequent set of available instances of transportation.

16. The computer program product of claim 15 further comprising instructions to: send seat availability queries to a different source of seat availability information if the results from the first are not reliable.

17. The computer program product of claim 15 further comprising instructions to:

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send multiple, sequential seat availability queries to multiple sources that predict seat availability information.

18. The computer program product of claim 15 wherein the sources of seat availability information have differing fixed and marginal costs associated with obtaining information, including computation, communication, time, and charges and the program further comprising instructions to:

set a threshold limit on the availability process to access the sources for at least one of the costs.

19. The computer program product of claim 15 wherein the sources of seat availability information generate replies with differing quality properties including at least one of freshness, confidence, precision, and validity.

20. The computer program product of claim 15 further comprising instructions to:
determine tradeoffs between the cost of a query and the properties of the response.

21. A method for determining availability of a seat for a mode of transportation, comprises:

evaluating quality of availability information received from a source of availability information for a set of instances of transportation to determine a set of available instances of transportation, to guide a travel planning system in determining a subsequent set of available instances of transportation.

22. The method of claim 21 further comprising:
receiving the set of instances of transportation from a travel planning system in response to a user query;

23. The method of claim 21 further comprising:

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sending seat availability queries to a different source of seat availability information if the results from the first source do not have a sufficient level of quality.

24. The method of claim 21 further comprising:

sending multiple, sequential seat availability queries to multiple sources that predict seat availability information.

25. The method of claim 21 wherein the sources of seat availability information have differing fixed and marginal costs associated with obtaining information, including computation, communication, time, and charges and the method further comprises:

setting a threshold limit on the availability process to access the sources for at least one of the costs.

26. The method of claim 21 wherein the sources of seat availability information generate replies with differing quality properties including at least one of freshness, confidence, precision, and validity.

27. The method of claim 21 further comprising:

determining tradeoffs between the cost of a query and the properties of the response.

28. The travel planning system of claim 1 wherein probabilistic confidence bounds describing uncertainty in measurements of availability are placed on the quality properties.

29. The travel planning system of claim 1 wherein the availability queries to be performed are selected to increase the number of available solutions found or to increase the likelihood that the availability of the desirable solutions has been verified with high confidence.

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30. The travel planning system of claim 1 wherein multiple responses, which contain different availability information and/or quality properties are simultaneously maintained in the travel planning system.

In the drawings:

Please substitute the figures with the enclosed formals that comply with the examiner's requirement and with changes marked in red on copies of the originally filed drawings.